

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Kayla Brant on April 23, 2008.

3. The application has been amended as follows:

**In the claims:**

Please amend claims 1, 8, 10, 22, 25, 27, 29, and 55 as below:

**1. (Currently Amended)** A method comprising  
identifying an original graphic data object having a left vertical edge, a right vertical edge, a top horizontal edge, and a bottom horizontal edge, rendered in association with ~~a rectangular~~ an original screen having a horizontal axis and a vertical axis, wherein the original screen has a resizing point on the horizontal axis such that a line extending through the resizing point and parallel to the vertical axis intersects the original graphic data object;  
identifying a target screen having a different aspect ratio than the original screen, wherein a target graphic data object corresponding to the original graphic data object is to be rendered in association with the target screen;

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determining a height,  $H_{OO}$ , and a width,  $W_{OO}$ , of the original graphic data object, wherein:

$H_{OO}$  represents a distance between the top and bottom horizontal edges of the original graphic data object; and

$W_{OO}$  represents a distance between the left and right vertical edges of the original graphic data object;

determining a height,  $H_{OS}$ , and a width,  $W_{OS}$ , of the original screen;

determining a height,  $H_{TS}$ , and a width,  $W_{TS}$ , of the target screen;

determining a distance,  $D_{VO}$ , between a particular one of the vertical edge-edges of the original graphic data object and a vertical edge of the original screen, and a distance,  $D_{HO}$ , between a particular one of the horizontal edge-edges of the original graphic data object and a horizontal edge of the original screen;

calculating a height ratio,  $R_H$  such that:

$$R_H = (H_{TS} / H_{OS});$$

calculating a stretch distance,  $S$ , such that:

$$S = W_{TS} - (R_H * W_{OS});$$

calculating a height,  $H_{TO}$ , and a width,  $W_{TO}$ , of the target graphic data object, such that:

$$H_{TO} = H_{OO} * R_H; \text{ and}$$

$$W_{TO} = (W_{OO} * R_H) + S;$$

calculating a distance  $D_{VT}$  between a vertical edge of the target graphic data object and a vertical edge of the target screen, wherein the vertical edge of the target graphic data object corresponds to the particular one of the vertical edge-edges of the original graphic data object and the vertical edge of the target screen corresponds to the vertical edge of the original screen, such that:

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$$D_{VT} = D_{VO} * R_H;$$

calculating a distance  $D_{HT}$  between a horizontal edge of the target graphic data object and a horizontal edge of the target screen, wherein the horizontal edge of the target graphic data object corresponds to the particular one of the horizontal edge-edges of the original graphic data object and the horizontal edge of the target screen corresponds to the horizontal edge of the original screen, such that:

$$D_{HT} = D_{HO} * R_H;$$

calculating display coordinates for the target graphic data object; and  
rendering the target graphic data object in association with the target screen at a location indicated by the display coordinates.

**8. (Currently Amended)** A method comprising:

identifying a ~~rectangular~~ first original graphic data object having top, bottom, left, and right edges, rendered in association with a rectangular original screen having an x-axis, wherein the original screen has a resizing point on the x-axis such that a line extending through the resizing point and perpendicular to the x-axis intersects the first original graphic data object;

identifying a target screen having a different aspect ratio than the original screen, wherein a first target graphic data object corresponding to the first original graphic data object is to be rendered in association with the target screen;

determining a height,  $H_{OS}$ , and a width,  $W_{OS}$ , of the original screen;

determining a height,  $H_{TS}$ , and a width,  $W_{TS}$ , of the target screen;

calculating a height ratio,  $R_H$ , such that:

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$$R_H = H_{TS} / H_{OS};$$

calculating a stretch distance, S, such that:

$$S = W_{TS} - (R_H * W_{OS});$$

determining a height,  $H_{OO}(1)$ , and a width,  $W_{OO}(1)$ , of the first original graphic data object,

wherein:

$H_{OO}(1)$  represents a distance between the top and bottom edges of the first original graphic data object; and

$W_{OO}(1)$  represents a distance between the left and right edges of the first original graphic data object;

determining a distance,  $O_{TD}(1)$ , between ~~a~~the top edge of the first original graphic data object and a top edge of the original screen, and a distance,  $O_{LD}(1)$ , between ~~a~~the left edge of the first original graphic data object and a left edge of the original screen;

calculating a height,  $H_{TO}(1)$ , and a width,  $W_{TO}(1)$ , of the first target graphic data object, such that:

$$H_{TO}(1) = R_H * H_{OO}(1); \text{ and}$$

$$W_{TO}(1) = (R_H * W_{OO}(1)) + S;$$

calculating a distance,  $T_{TD}(1)$  between a top edge of the first target graphic data object and a top edge of the target screen, and a distance,  $T_{LD}(1)$  between a left edge of the first target graphic data object and a left edge of the target screen, such that:

$$T_{TD}(1) = O_{TD}(1) * R_H; \text{ and}$$

$$T_{LD}(1) = O_{LD}(1) * R_H;$$

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identifying a ~~rectangular~~ second original graphic data object having top, bottom, left, and right edges, rendered in association with the original screen, wherein ~~a~~ the right edge of the second original graphic data object is to the left of the line extending through the resizing point, and wherein a second target graphic data object corresponding to the second original graphic data object is to be rendered in association with the target screen;

determining a height,  $H_{OO}(2)$ , and a width,  $W_{OO}(2)$ , of the second original graphic data object, wherein:

$H_{OO}(2)$  represents a distance between the top and bottom edges of the second original graphic data object; and

$W_{OO}(2)$  represents a distance between the left and right edges of the second original graphic data object;

determining a distance,  $O_{TD}(2)$ , between ~~a~~ the top edge of the second original graphic data object and the top edge of the original screen, and a distance,  $O_{LD}(2)$ , between ~~a~~ the left edge of the second original graphic data object and the left edge of the original screen;

calculating a height,  $H_{TO}(2)$ , and a width,  $W_{TO}(2)$ , of the second target graphic data object, such that:

$$H_{TO}(2) = R_H * H_{OO}(2); \text{ and}$$

$$W_{TO}(2) = R_H * W_{OO}(2);$$

calculating a distance,  $T_{TD}(2)$ , between a top edge of the second target graphic data object and the top edge of the target screen, and a distance,  $T_{LD}(2)$ , between a left edge of the second target graphic data object and the left edge of the target screen, such that:

$$T_{TD}(2) = O_{TD}(2) * R_H; \text{ and}$$

$$T_{LD}(2) = O_{LD}(2) * R_H; \text{ and}$$

rendering the first and second target graphic data objects in association with the target screen according to the calculated  $H_{TO}(1)$ ,  $W_{TO}(1)$ ,  $T_{TD}(1)$ ,  $T_{LD}(1)$ ,  $H_{TO}(2)$ ,  $W_{TO}(2)$ ,  $T_{TD}(2)$ , and  $T_{LD}(2)$ .

**10. (Currently Amended)** The method as defined in Claim 8, further comprising: identifying a ~~rectangular~~ third original graphic data object having left, right, top, and bottom edges, rendered in association with the original screen, wherein the left edge of the third original graphic data object ~~has a left edge~~ is to the right of the line extending through the resizing point, and wherein a third target graphic data object corresponding to the third original graphic data object is to be rendered in association with the target screen; determining a height,  $H_{OO}(3)$ , and a width,  $W_{OO}(3)$ , of the third original graphic data object, wherein:

$H_{OO}(3)$  represents a distance between the top and bottom edges of the third original graphic data object; and

$W_{OO}(3)$  represents a distance between the left and right edges of the third original graphic data object;

determining a distance,  $O_{TD}(3)$ , between ~~a~~ the top edge of the third original data object and the top edge of the original screen, and a distance,  $O_{RD}(3)$ , between ~~a~~ the right edge of the third original data object and a right edge of the original screen;

calculating a height,  $H_{TO}(3)$ , and a width,  $W_{TO}(3)$ , of the third target graphic data object such that:

$$H_{TO}(3) = H_{OO}(3) * R_H; \text{ and}$$

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$$W_{TO}(3) = W_{OO}(3) * R_H;$$

calculating a distance,  $T_{TD}(3)$ , between a top edge of the third target graphic data object and the top edge of the target screen, and a distance,  $T_{RD}(3)$ , between a right edge of the third target graphic data object and a right edge of the target screen such that:

$$T_{TD}(3) = O_{TD}(3) * R_H; \text{ and}$$

$$T_{RD}(3) = O_{RD}(3) * R_H; \text{ and}$$

rendering the third target graphic data object in association with the target screen according to the calculated  $H_{TO}(3)$ ,  $W_{TO}(3)$ ,  $T_{TD}(3)$ , and  $T_{LD}(3)$ .

**22. (Currently Amended)** A method comprising:

identifying an original graphic data object having a left vertical edge, a right vertical edge, a top horizontal edge, and a bottom horizontal edge, rendered in association with ~~a rectangular~~ an original screen having a horizontal axis and a vertical axis, y-axis, wherein the original screen has a resizing point on the y-axis-vertical axis such that a line extending through the resizing point and perpendicular to the y-axis-vertical intersects the original graphic data object;

identifying a target screen having a different aspect ratio than the original screen, wherein a target graphic data object corresponding to the original graphic data object is to be rendered in association with the target screen;

determining a height,  $H_{OO}$ , and a width,  $W_{OO}$ , of the original graphic data object, wherein:

$H_{OO}$  represents a distance between the top and bottom horizontal edges of the original graphic data object; and

W<sub>OO</sub> represents a distance between the left and right vertical edges of the original graphic data object;

~~obtaining a proportionate graphic data object by proportionally modifying the size of the original graphic data object by multiplying both the width and the height of the original graphic data object by a ratio of a width of the target screen to a width of the original screen;~~

~~obtaining a target graphic data object having the same width as the proportionate graphic data object and a height equal to the height of the proportionate graphic data plus a stretch distance;~~

~~calculating provisional display coordinates for the target graphic data object based, at least in part, on the height and width of the target graphic data object;~~

~~calculating display coordinates for the target graphic data object by rounding the provisional display coordinates to an integer value, thereby potentially modifying the size of the target graphic data object; and~~

~~using the display coordinates to render the target graphic data object in association with the target screen, wherein the target screen has a different aspect ratio than the original screen~~

determining a height, H<sub>OS</sub>, and a width, W<sub>OS</sub>, of the original screen;

determining a height, H<sub>TS</sub>, and a width, W<sub>TS</sub>, of the target screen;

determining a distance, D<sub>VO</sub>, between a particular one of the vertical edges of the original

graphic data object and a vertical edge of the original screen, and a distance, D<sub>HO</sub>, between a

particular one of the horizontal edges of the original graphic data object and a horizontal edge of the original screen;

calculating a width ratio, R<sub>W</sub> such that:

$$\underline{R_W = (W_{TS} / W_{OS});}$$



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calculating a stretch distance, S, such that:

$$S = H_{TS} - (R_W * H_{OS});$$

calculating a height, H<sub>TO</sub>, and a width, W<sub>TO</sub>, of the target graphic data object, such that:

$$W_{TO} = W_{OO} * R_W; \text{ and}$$

$$H_{TO} = (H_{OO} * R_W) + S;$$

calculating a distance D<sub>VT</sub> between a vertical edge of the target graphic data object and a vertical edge of the target screen, wherein the vertical edge of the target graphic data object corresponds to the particular one of the vertical edges of the original graphic data object and the vertical edge of the target screen corresponds to the vertical edge of the original screen, such that:

$$D_{VT} = D_{VO} * R_W;$$

calculating a distance D<sub>HT</sub> between a horizontal edge of the target graphic data object and a horizontal edge of the target screen, wherein the horizontal edge of the target graphic data object corresponds to the particular one of the horizontal edges of the original graphic data object and the horizontal edge of the target screen corresponds to the horizontal edge of the original screen, such that:

$$D_{HT} = D_{HO} * R_W;$$

calculating display coordinates for the target graphic data object; and

rendering the target graphic data object in association with the target screen at a location indicated by the display coordinates.

**25. (Canceled)**

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**27. (Currently Amended)** A method comprising:

identifying a ~~rectangular~~ first original graphic data object having left, right, top, and bottom edges, rendered in association with a rectangular original screen having a y-axis, wherein the original screen has a resizing point on the y-axis such that a line extending through the resizing point and perpendicular to the y-axis intersects the first original graphic data object;

identifying a target screen having a different aspect ratio than the original screen, wherein a first target graphic data object corresponding to the first original graphic data object is to be rendered in association with the target screen;

determining a height,  $H_{OS}$ , and a width,  $W_{OS}$ , of the original screen;

determining a height,  $H_{TS}$ , and a width,  $W_{TS}$ , of the target screen;

calculating a width ratio,  $R_W$ , such that:

$$R_W = W_{TS} / W_{OS};$$

calculating a stretch distance,  $S$ , such that:

$$S = H_{TS} - (R_W * H_{OS});$$

determining a height,  $H_{OO}(1)$ , and a width,  $W_{OO}(1)$ , of the first original graphic data object,

wherein:

$H_{OO}(1)$  represents a distance between the top and bottom edges of the first original

graphic data object; and

$W_{OO}(1)$  represents a distance between the left and right edges of the first original graphic

data object;

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determining a distance,  $O_{TD}(1)$  between ~~a~~the top edge of the first original graphic data object and a top edge of the original screen, and a distance,  $O_{LD}(1)$  between ~~a~~the left edge of the first original graphic data object and a left edge of the original screen;

calculating a height,  $H_{TO}(1)$ , and a width,  $W_{TO}(1)$ , of the first target graphic data object such that:

$$H_{TO}(1) = (R_W * H_{OO}(1)) + S; \text{ and}$$

$$W_{TO}(1) = R_W * W_{OO}(1);$$

calculating a distance,  $T_{TD}(1)$ , between a top edge of the first target graphic data object and a top edge of the target screen and a distance,  $T_{LD}(1)$ , between a left edge of the first target graphic data object and a left edge of the target screen such that such that:

$$T_{TD}(1) = O_{TD}(1) * R_W; \text{ and}$$

$$T_{LD}(1) = O_{LD}(1) * R_W;$$

identifying a ~~rectangular~~ second original graphic data object having left, right, top, and bottom edges, rendered in association with the original screen, wherein ~~a~~the bottom edge of the second original graphic data object is above the line extending through the resizing point, and wherein a second target graphic data object corresponding to the second original graphic data object is to be rendered in association with the target screen;

determining a height,  $H_{OO}(2)$ , and a width,  $W_{OO}(2)$ , of the second original graphic data object, wherein:

$H_{OO}(2)$  represents a distance between the top and bottom edges of the second original graphic data object; and

$W_{OO}(2)$  represents a distance between the left and right edges of the second original graphic data object;

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determining a distance,  $O_{TD}(2)$ , between ~~a~~the top edge of the second original graphic data object and the top edge of the original screen and a distance,  $O_{LD}(2)$ , between ~~a~~the left edge of the second original graphic data object and the left edge of the original screen;

calculating a height,  $H_{TO}(2)$ , and a width,  $W_{TO}(2)$ , of the second target graphic data object such that:

$$H_{TO}(2) = R_W * H_{OO}(2); \text{ and}$$

$$W_{TO}(2) = R_W * W_{OO}(2);$$

calculating a distance,  $T_{TD}(2)$ , between a top edge of the second target graphic data object and the top edge of the target screen and a distance,  $T_{LD}(2)$ , between a left edge of the second target graphic data object and the left edge of the target screen such that:

$$T_{TD}(2) = O_{TD}(2) * R_W; \text{ and}$$

$$T_{LD}(2) = O_{LD}(2) * R_W; \text{ and}$$

rendering the first and second target graphic data objects in association with the target screen according to the calculated  $H_{TO}(1)$ ,  $W_{TO}(1)$ ,  $T_{TD}(1)$ ,  $T_{LD}(1)$ ,  $H_{TO}(2)$ ,  $W_{TO}(2)$ ,  $T_{TD}(2)$ , and  $T_{LD}(2)$ .

**29. (Currently Amended)** The method as defined in Claim 27, further comprising:

identifying a ~~rectangular~~ third original graphic data object having left, right, top, and bottom edges, rendered in association with the original screen, wherein the top edge of the third original graphic data object ~~has a top edge is~~ below the line extending through ~~he~~the resizing point, and wherein a third target graphic data object corresponding to the third original graphic data object is to be rendered in association with the target screen;

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determining a height,  $H_{OO}(3)$ , and a width,  $W_{OO}(3)$ , of the third original graphic data object,

wherein:

$H_{OO}(3)$  represents a distance between the top and bottom edges of the third original graphic data object; and

$W_{OO}(3)$  represents a distance between the left and right edges of the third original graphic data object;

determining a distance,  $O_{BD}(3)$ , between ~~a~~the bottom edge of the third original graphic data object and a bottom edge of the original screen and a distance  $O_{LD}(3)$  between ~~a~~the left edge of the third original graphic data object and the left edge of the original screen;

calculating a height,  $H_{TO}(3)$ , and a width,  $W_{TO}(3)$ , of the third target graphic data object such that:

$$H_{TO}(3) = H_{OO}(3) * R_W; \text{ and}$$

$$W_{TO}(3) = W_{OO}(3) * R_W;$$

calculating a distance,  $T_{BD}(3)$ , between a bottom edge of the third target graphic data object and a bottom edge of the target screen, and a distance,  $T_{LD}(3)$ , between a left edge of the third target graphic data object and the left edge of the target screen such that:

$$T_{BD}(3) = O_{BD}(3) * R_W; \text{ and}$$

$$T_{LD}(3) = O_{LD}(3) * R_W; \text{ and}$$

rendering the third target graphic data object in association with the target screen according to the calculated  $H_{TO}(3)$ ,  $W_{TO}(3)$ ,  $T_{BD}(3)$ ,  $T_{LD}(3)$ .

**55. (Currently Amended)** A computer graphics system for obtaining first and second target graphic data objects on a rectangular target screen based on first and second original graphic data objects on a rectangular original screen, the target screen having a different aspect ratio than that of the original screen, the computer graphics system comprising:

means for identifying a line perpendicular to an edge of the original screen, wherein the line projects from a resizing point on the edge;

means for determining that the first original graphic data object is proportionally resizable because the line does not intersect the first original graphic data object;

means for determining that the second original graphic data object is non-proportionally resizable because the line intersects the second original graphic data object;

means for determining a height,  $H_{OS}$ , and a width,  $W_{OS}$ , of the original screen;

means for determining a height  $H_{TS}$ , and a width,  $W_{TS}$ , of the target screen;

means for determining a resizing ratio,  $R$ , and a stretch distance,  $S$ , such that:

if  $(H_{TS} / H_{OS}) > (W_{TS} / W_{OS})$ ;

$R = W_{TS} / W_{OS}$ ; and

$S = H_{TS} - (R * H_{OS})$ ; and

if  $(H_{TS} / H_{OS}) < (W_{TS} / W_{OS})$ :

$R = H_{TS} / H_{OS}$ ; and

$S = W_{TS} - (R * W_{OS})$ ;

means for proportionally resizing the first original graphic data object to obtain a first target graphic data object, by calculating a height,  $H_{TO(1)}$ , and a width,  $W_{TO(1)}$ , of the first target graphic data object such that:

$$H_{TO}(1) = H_{OO}(1) * R; \text{ and}$$

$$W_{TO}(1) = W_{OO}(1) * R;$$

wherein  $H_{OO}(1)$  represents a height of the first original graphic data object as measured between a top horizontal edge and a bottom horizontal edge of the first original graphic data object, and  $W_{OO}(1)$  represents a width of the first original graphical data object, as measured between a left vertical edge and a right vertical edge of the first original graphic data object;

means for proportionally resizing the second original graphic data object to obtain a proportional graphic data object, by calculating a height,  $H_{PO}$ , and a width,  $W_{PO}$ , of the proportional graphic data object such that:

$$H_{PO} = H_{OO}(2) * R; \text{ and}$$

$$W_{PO} = W_{OO}(2) * R;$$

wherein  $H_{OO}(2)$  represents a height of the second original graphic data object as measured between a top horizontal edge of the second original graphic data object and a bottom horizontal edge of the second original graphic data object, and  $W_{OO}(2)$  represents a width of the second original graphic data object as measured between a left vertical edge of the second original graphic data object and a right vertical edge of the second original graphic data object; and

means for non-proportionally resizing the proportional graphic data object by, calculating a height,  $H_{TO}(2)$ , and a width  $W_{TO}(2)$ , of the second target graphic data object, such that:

$$\text{if } (H_{TS} / H_{OS}) > (W_{TS} / W_{OS});$$

$$H_{TO}(2) = H_{PO} + S; \text{ and}$$

$$W_{TO}(2) = W_{PO}; \text{ and}$$

$$\text{if } (H_{TS} / H_{OS}) < (W_{TS} / W_{OS}):$$

$$H_{TO}(2) = H_{PO}; \text{ and}$$

$$W_{TO}(2) = W_{PO} + S.$$

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Tank whose telephone number is 571-270-1692. The examiner can normally be reached on Mon - Thur 0830-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Examiner, Art Unit 2175  
April 24, 2008

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